

**MEETING MINUTES – March 7, 2001  
FORMER LAKE ONTARIO ORDNANCE WORKS SITE (LOOW)  
RESTORATION ADVISORY BOARD**

**To: Restoration Advisory Board (RAB) Members and Interested Parties**  
**From: May Kay Foley, U.S. Army Corps of Engineers, Project Manager**  
**SUBJECT: Minutes of the March 7, 2001 RAB Meeting**

<b>RAB Members Present:</b>	<b>Affiliation:</b>
Mike Basile	USEPA
William Brain for Bruce Mero	U.S. Air Force
Paul Dicky	Niagara County Health Department
Thomas Freck	Community Member
Jim Garrett for Gary Smith	Modern Landfill
Tim Henderson	Community Member
Kent Johnson	NYS Department of Environmental Conservation
Charles Lamb	Town of Porter
Darwin James Langlois	Town of Lewiston
Nona McQuay	Community Member
Dr. Nils Olsen, Jr.	Community Member
Joseph Passanese for Clyde Johnston, Jr	Community Member
John Syms	Somerset Group
Stephen Yaksich, Government Co-Chair	US Army Corps of Engineers, Buffalo District
Rebecca Zayatz	Chemical Waste Management, Inc.
<b>RAB Members Absent:</b>	
William Roger Angus	Community Member
Lawrence Brennen	Community Member
Martin Hodgins	Community Member
Edward Lilly	Community Member
Andrew Mess	Community Member
Neil Patterson	Community Member
Walter Polka	Community Member
Daniel Serrianni, Jr.	Community Member

Introduction and Welcome - Call Meeting to Order at 7:05 P.M. by Ms. Arleen Kreusch

- The meeting was called to order and began by having the RAB members and guests introduce themselves.
- The minutes from the last meeting were approved.
- Action Items from the last meeting were reviewed.
- The Corps will address the issue of the status of the Waste Water Treatment Plant (WWTP) at the LOOW Site. The other buildings on the site will remain an open action item.
- The Corps will also address the issue of the ground scar at LOOW
- Additional information on the Agency for Toxic Substances and Disease Registry (ATSDR) will be provided.
- Mr. Syms to bring in map showing areas where wastes were buried on the NFSS.
- After sending a letter and documentation to the New York State Department of Health (NYSDOH) regarding the restraining orders on NFSS, the Corps determined that the action is required between the property owner and the NYSDOH.
- The Corps has been and will continue to interview people who worked at NFSS between 1940 and 1986.
- Paul Dicky will give a brief presentation on health studies conducted by the Department of Health and will identify the availability of someone from the New York State Department of Health to present information on future health studies. This will remain an open Action Item.

Slide Presentation - Corps of Engineers provided an overview of activities associated with the DERP-FUDS Program at the Former Lake Ontario Ordnance Works Site.

A brief fifteen (15) minute question and answer period followed the presentation to address specific questions of any Board Member and members of the audience. A summary of questions and responses are presented in the tables below.

**Questions and Answers from Restoration Advisory Board Members  
Regarding the Former Lake Ontario Ordnance Works Site**

COMMENT	RESPONSE
Nona McQuay: I'd like to make a comment and say that the ATSTR is part of the government and has uniformed officers that actually come out and do the surveys.	
Tom Freck: According to Slide 10, you said that you had some asbestos removal on the Somerset property. Are you done removing the asbestos?	Mary Kay Foley: No, we removed asbestos incidental to the Remedial Investigation in the buildings where we thought we'd have to do some work there at a later date..
Henderson: I suggest you read the deed between the town of Lewiston and the government on the WWTP.	<i>Arleen Kreusch: We will put that as an action item for the next meeting.</i>
Nona McQuay: I'm not familiar with all of these acronyms. Can you tell me what an EE/CA is?	Foley: EE/CA stands for Engineering Evaluation/Cost Analysis. It is part of the CERCLA process, which stands for the Comprehensive Environmental Response, Compensation and Liability Act. It is the same process the EPA uses for Superfund sites. An EE/CA is a report that evaluates different alternatives for a site.
Tim Henderson: Is NFSS included in the Risk Assessment for LOOW?  I'm very uncomfortable with not looking into elevated levels of radioactive waste on the on the entire property. I hope that you are looking into evaluating risk for all of LOOW, not just NFSS.	Foley: No, Judy Leithner is looking into the Scope of Work for a Risk Assessment for NFSS. They will be separate documents.
Darwin James Langlois: According to the slide, you are going to begin work in the summer? Is it this summer or next summer?	This summer. Summer 2001.
Tom Freck: I would like you to still look into the ground scar at LOOW. Just because it doesn't look like there's a lot of soil movement doesn't mean that some activity couldn't have gone on. Back in the old days, if there was a hole, people were inclined to fill it in.	Foley: We could have EA Engineering, our contractors, do more sampling in the area.
John Syms: Is the ground scar on the Hooker property?	Foley: It's on the Occidental Corporation property.
Nona McQuay: What would be the fate of contaminants if they were found to be on either side of a boundary line? Would you have a problem with combining operable units?	Foley: Operable units are just an administrative designation. We would not hesitate to combine operable units if the situation warranted it. We will clean up all areas.

**Questions and Answers from Restoration Advisory Board Members  
Regarding the Former Lake Ontario Ordnance Works Site (Continued)**

COMMENT	RESPONSE
<p>Linda Shaw (Somerset Group): According to the minutes from the last meeting, you said you were going to have data from the investigation you conducted this summer. Now it is almost one year later and you still are not saying what the results are. You're out there poking holes in the ground and not telling anyone what the results are. If there is a health risk, these people need to know about it.</p> <p>I also think that it's very premature to say that the clay around the pipelines would stop any leaking if it were present. I would think that if there was leaking, the clay would act as a conduit to the lakes and streams.</p> <p>I would also like to recommend that a technical assistant be incorporated to the RAB. This is a famous trick that I see employed all the time: they divide the site into all of these different operable units and then all of these reports come out and you don't know what's going on. A technical assistant would help to organize all of the different data that's being thrown at you and would put the technical language into layman's terms.</p>	<p><i>Kreusch: I don't see anything in the minutes about having data. It definitely isn't an action item.</i></p> <p>Foley: We haven't shared the results of the investigation because we don't have all of the results yet. There are literally boxes and boxes of materials that have to be read and sorted before we can share the results with the RAB and the audience.</p> <p>We will put the results of the Risk Assessment in the Administrative Record and on the Web. I also think it's a good idea to have a technical advisor. We're not trying to hide anything; if you feel that you'd be able to trust us more if there was someone else involved, then I think it's a good idea.</p> <p>Kreusch: The procedures for establishing a RAB do have guidelines for technical assistance and support. Copies of this guideline will be mailed to all who signed in as part of the minutes.</p>
<p>Nona McQuay: I suggest that if we get a technical advisor, we get two of them: one for chemical contamination and one for radiological contamination. It would also be nice if the advisors were associated with a school, such a Cornell University.</p>	<p>Kreusch: I can look into getting someone from the Technical Outreach Services for Communities. They are associated with the local universities and would be able to provide us with the assistance we need. Nils, if they request letters from the community, would you be in charge of that?</p> <p>Nils Olsen: Yes.</p>
<p>Louis Ricciuti (FACTS): Would a technical advisor be able to tell residents if they've been exposed to the contaminants on the site? If not, I strongly suggest that someone look into that also.</p>	

Site Briefing – Corps of Engineers provided an overview of activities associated with the Formerly Utilized Sites Remedial Action Program (FUSRAP) at the Niagara Falls Storage Site. The Corps will be interviewing employees who worked at the Niagara Falls Storage Site or anyone with knowledge of operations at the Niagara Falls Storage Site prior to 1986.

A brief twenty (20) minute question and answer period followed the briefing to address specific questions of any Board Member and members of the audience. A summary of questions and responses are presented in the tables below.

**Questions and Answers from Restoration Advisory Board Members and Members of the Public  
Regarding the Niagara Falls Storage Site**

COMMENT	RESPONSE
<p>Tom Freck: You identified Castle Garden Dump and the Rochester Burial Ground. Is it in a fenced off area that the public can't get into or is it in an area where someone can wander in?</p> <p>I understand that, but are the two sites in a secure area? Usually powerlines don't have fences around them, and this is on Niagara Mohawk property. Are these properties secure?</p> <p>Right, but you said that one was on Niagara Mohawk property, that's the other area?</p> <p>So, in other words, your in a non-secure area in basically the Town of Lewiston, where there's possibly radioactive waste, is what you're saying?</p> <p>Well, there's no fence around those powerlines; I know right where it is and there's nothing that you're saying that you're going to investigate Niagara Mohawk property for contamination. That's all open to the public, shouldn't that be a concern that Niagara Mohawk is in there working on powerlines, have those people been informed that there's radioactive waste possibly in that area?</p>	<p>Judy Leithner: These two areas are not in the same identical place.</p> <p>That is fenced. Up where the Castle Garden Dump is, that's on Chemical Waste Management property and they secure their property.</p> <p>No, on Niagara Mohawk property, we found radiological contamination at the property, so we're going over there to look for more radiological contamination and we're going to do a few samples.</p> <p>No.</p> <p>First off, we would need a right of entry to get onto Niagara Mohawk property and we actually have the right of entry signed, but it actually took us about three or four months because of explaining what the site was and what we wanted to do. In terms of securing the site more than it is, there's nothing the Corps can do about it. Supposedly, because we found some contamination in other places that were supposed to be clean before (we don't know if dirt fell off the truck or what) but we're going over as far as the ditch, if the ditch is clean, we won't go any further, if it's not, we'll do the whole thing.</p>
<p>Tim Henderson: Do you have any plans for testing off-site? You had mentioned that you were confident that the Storage Site wasn't leaking, but do you have any plans to test the ditches or swails because contamination was found there in the 1980's?</p>	<p>Judy Leithner: We're testing all the ditches on the Niagara Falls property, and if we found contamination at the boundaries, then we go over and get a Right of Entry to the adjoining property and test those. In fact, the Niagara Mohawk property, we'll be testing their ditches because we found contamination at the boundary between the two properties. But other than that, when we have no reason for thinking there was ever any rad</p>

**Questions and Answers from Restoration Advisory Board Members and Members of the Public  
Regarding the Niagara Falls Storage Site (Continued)**

COMMENT	RESPONSE
<p>Henderson: Because there is documentation of contamination at Six Mile Creek and it's going to take more than a chain link fence to keep it from migrating. I mean, when you test, you assume that it's not, other than groundwater and aquifers and that, could it have traveled other than on top of the ground. I mean, to me, it's a big assumption to say that it's not leaking because all you've done is test on site. How about off site?</p> <p>That's a good question. But they did find contamination in the west ditch, Six Mile Creek, and I have no documents that said it was ever cleaned up.</p> <p>I'd be more than happy to.</p> <p>I think I have it.</p>	<p>Leithner (continued): activity, at some remote site, we're not going to just go over there and test, we have no authority to do that.</p> <p>If it's not contaminated on site when you test all the way to the boundary, what would lead you to believe that it would have migrated? How did it get there?</p> <p>I'd be real happy to have you fax a copy of those.</p> <p>Do you need my number?</p> <p>Okay. Any other questions?</p>
<p>Louis Riccui (FACTS): I'd like to address the animal burial grounds and the Castle Garden Dump.</p> <p>Is there any record that indicates why those two areas are called those particular names?</p>	<p>Leithner: Right.</p> <p>The only thing indicated with the Rochester Burial Area is that the animals came from the University of Rochester. They had sent most of their animals to Oak Ridge and there was even some question for a while as to whether they really did send animals to that site or not because of the paperwork we received from the U of R said 'absolutely not.' Then we interviewed some workers and one of them actually saw them with their own eyes. We began digging into available records; we don't find too much of a record that says much about that site, but we know where it is, and so given this testimony by this former worker, we're going in and making sure. What he told us was (and it was kind of interesting) he said he was a health and safety man on site. One day he was called to that site and they were suspicious that there was something under there and they had him dig and go down and he said he found crates about so big (<i>size was shown by measuring out by hand</i>) that contained animal carcasses and he actually had to sample one. And then, they were told, 'fill this in and put big flags here, we're going in and taking these out; we're taking them to Oak Ridge.' And he said he thought they had been removed, but since we don't know, we're going out there to find out.</p>

**Questions and Answers from Restoration Advisory Board Members and Members of the Public  
Regarding the Niagara Falls Storage Site (Continued)**

COMMENT	RESPONSE
<p>Ricciuti (continued): If I may a little further here, is that during the course of your conversation here, your discussions, you've mentioned radiological contamination. Without using specifics as to which radionuclide you've identified on the property, whether it's uranium, radium, plutonium, pollunium...any of those materials, have any of those particular items been specifically identified on the site, or are we just using general broad terms such as radioactivity?</p> <p>What sorts of radionuclides so far have you found exactly on the site?</p> <p>How about cesium or plutonium?</p> <p>Well, the reason I mention it is because there have been tests done at the Niagara River and on Lake Ontario that have identified certain amounts of plutonium in the water system. I would also like to make mention that I have about six months of research and what I have found is that the likelihood of the animal remains being sent from Rochester to the Niagara Falls site here, the Lake Ontario Ordnance Works, is extremely high. I spoke last week to Ms. Eileen Welsome, the author of "The Plutonium Files," 1999 Pulitzer Prize winner, and we discussed at length the animal experiments that were conducted in Rochester. She seems to concur that it is very likely that the remains were sent here, whether they were shipped here afterwards to Oakridge, I also have records that show other places in the country did send animal carcasses to this, and I would be more than happy to share with the Army Corps.</p> <p>In addition to this, and I hope everyone's holding on to their seat, is that Rochester, being home to the human experimentation project that occurred, where there were in the area of 15 human subjects</p>	<p>Leithner: No, actually, we've done a very careful chemical analysis of what it is. Everything on the surface that we test is very low level, but it is present. And since we don't know what cleanup level we will clean up to, we need to know what it is exactly and where it is and exactly what it is.</p> <p>We've found mostly trace amounts of uranium. We know in the mound in itself (we haven't tested that because it really is dangerous to go in and test that) we know there's thorium, we know there is radium (it is of course generating radon). The four-foot deep clay cap retards radon percolation until the radon has disintegrated and on tests on the top indicate it is below background.</p> <p>We have not found cesium or plutonium although we see some records that there were some cesium caps or something on the Lake Ontario part of the site, so we're still investigating that, but we haven't found cesium or plutonium.</p> <p>We'd be happy to have you share it, because we have not heard this.</p>

**Questions and Answers from Restoration Advisory Board Members and Members of the Public  
Regarding the Niagara Falls Storage Site (Continued)**

COMMENT	RESPONSE
<p>Ricciuti (cont'd): unwittingly injected with plutonium during the course of the 1940's and 1950's, Ms. Welsom also seems to think that it's highly likely that there may be some human waste in this facility as well. I'm not talking about full cadavers, I'm talking about internal organs, I'm talking about tissue samples, bone samples, et cetera. I also have documentation (and I have it in my briefcase) that shows that Colonel Stafford Warren, who was the head of the human radiation experimentation program, not only in Rochester, but throughout the United States, had a very sincere interest in the Lake Ontario Ordnance Works site and also in the city of Niagara Falls. There were experiments that were conducted in the city of Niagara Falls. There were samples that were taken from employees of factories in the city of Niagara Falls. Urine, blood samples, tissue samples, biopsies, et cetera. I would like to make this advisory board aware that there is a strong likelihood that there may be human remains on this site.</p> <p>I do have War Department documentation that shows that there were medical biopsies that were sent to Niagara Falls, whether they're referring directly to the storage site for analysis, but there was quite an elaborate laboratory down at the LOOW site, only 7,000 feet from here. Sitting in the school, I'd like to remind everybody how close we are. The animals, which numbered anywhere from one to 300,000, if your interviewee said he saw wooden crates, that does fall right in line with the way that the Army Corps and also the Atomic Energy Commission after 1947 disposed of their materials. The animal carcasses, the majority of experiments conducted in Rochester involved plutonium. Plutonium is an extremely deadly element, even more so than what we're talking about here with radium being contained in concrete structures. If in fact, these carcasses, to the tune of whether its 1,000 or 100,000, and they were contaminated with plutonium, because they are not isolated from the environment or the groundwater,</p>	<p>Leithner: We would appreciate any information you have, although the surprising thing there is that back in those days, for blood and urine and samples and thing, they usually had their own incinerators right there in the hospitals, so it would sort of surprising, but we would like to see and documentation...</p>

**Questions and Answers from Restoration Advisory Board Members and Members of the Public  
Regarding the Niagara Falls Storage Site (Continued)**

COMMENT	RESPONSE
<p>Ricciuti (cont'd): of this area, I think we have a priority issue with the potential of medical, human or animal experimentation waste from that project being within the boundaries of Niagara County.</p>	<p>Leithner: What I'm going to have to ask you to do is send us the information and we'll be happy look at it, happy to consider it, certainly we're going to clean it up if it's there.</p>
<p>Tim Henderson: Not to belittle the science and scientific studies and that, but just to get back to common sense, the area has been known as the Rochester University Burial Grounds. That alone tells you something. I would think that something there came from Rochester.</p> <p>At the last RAB meeting, I think I made a suggestion to contact the Rochester University. Was that done? Especially in shipping sensitive material like that, they should have some records of what came here. If it came on a railroad; a report from 1980 mentions that a railroad car was buried in the area. It was so contaminated that they just buried it along with contaminated animal residue.</p> <p>What's also confusing is that we have reports from the Department of Energy that seem to refer to it and it seems to go back and forth as to whether it's there or not and what we know or don't know. The Department of energy seems to be pretty clear that there was a site and that there were burials there. At least, they make these statements.</p>	<p>Leithner: It truly does, but the problem is that if I don't have something to focus on, then I have to dig up the whole site. What we're trying to do is narrow it to something where we can find it, because otherwise, there isn't enough money in the universe to take a backhoe and dig up 191 acres and say there might be an animal here. That would take years. I see what you're saying; it is common sense but I also have to use something to help me focus as to where to go in and get it out.</p> <p>We can try the U of R but the paperwork we have from the U of R says 'absolutely not' and that's what made it interesting to us is that they said 'absolutely not' and yet we have workers who saw it with their own eyes. So the problem we have here is conflicting stories which is taking us a while to dig down.</p> <p>That's our problem, too. That's why we are doing the geophysical tests I have been talking about. We are doing these over the entire Vicinity Property G area, which includes the so-called Rochester Burial Area and the Castle Garden Dump. It's going to cost us over half a million dollars to do what I'm talking about. Never mind that then we have to excavate and then we have to get them and so on and so forth, which will be an additional cost. So what I'm talking about is not a trivial effort and it's not something where the Corps is kind of yawning and saying, "we're not going to look at this." We're looking very carefully at it and if there's anything at the site, that's what's taking so long for some of these people who are saying, "why don't we have data, what's taking so long," Because we're looking very carefully, and if there's anything on this site, we will find it. It may not be tomorrow, but we will find it.</p>



**Due to time constraints, some members of the audience weren't able to have their questions addressed by the Corps of Engineers. Their comments, submitted on the forms provided by the Corps, along with responses from Mary Kay Foley and Judy Leithner, are outlined below.**

COMMENT	RESPONSE
<p>Jennifer Rhue: I've had the chance to be able to talk to families of workers who have died from cancer developed after they have done work on the block. I would recommend that if a health study were to be done that you find out the causes of deaths from the workers.</p>	<p>Judy Leithner: This is a good idea, but the Corps does not do health studies. We have no health personnel because we are not authorized by Congress to do health work. We have provided information at previous meetings as to how to approach the people who do them. If you did not receive this information, please call the Corps' Public Affairs Office at (716) 879-4156 or 1-800-833-6390.</p>
<p>In regards to the NFSS presentation, what is a plume? Also, is there anything for public record as to what you find in the interviews with the previous employees?</p>	<p>A plume is an area of contamination that emanates from a source. We do not have any identified plumes at this point, but we are looking to be sure. Interview results will be placed in the Administrative Record File for the site (currently located at the FUSRAP Public Information Center, 1776 Niagara Street in Buffalo and in the Lewiston and Youngstown Libraries) when we are done interviewing. There are currently hundreds of documents available for public viewing in the Administrative Record File. These documents are used to form the basis for the selection of a response action at a site. We strongly encourage the public to view these documents and welcome comments regarding them any time.</p>
<p>Was any radioactive material, uranium or plutonium and such, transported to other sites and contaminated them? Perhaps this should be another part of the environmental impact study. What about the groundwater below, since the pipes all have a common connection and since the water flows north to the lake? Why not test area wells? I have one, I'll volunteer it!</p>	<p>The materials that came to NFSS remained on site, but we have no indication that there is any plutonium. We study the groundwater and have done so for years without any problems – no contamination. Also, we were told that no one uses well water. If you have any information about residents using well water, please let us know.</p>
<p>There is a red zone that acknowledges the area of radioactivity that the neighborhood could be affected. What is its status currently? How far is it now?</p>	<p>There is no red zone because there is no contamination extending into neighborhoods.</p>
<p>Since it is rare to get uranium, is there an element of it to possibly mine out?</p>	<p>Uranium was already mined out before the residue was sent to NFSS. There is just a little left because the extraction process could not get all of it out.</p>
<p>What would be the impact of the site to the area around it – either by opening it up or by a seismic activity in the faults located below?</p>	<p>We have a study underway to see what the impact would be if an earthquake opened the cell (which is very unlikely).</p>

Paul Dicky from the Niagara County Health Department gave a brief presentation on the cancer study that is currently being conducted by the NYS Department of Health (NYSDOH). A handout, which consisted of various pages downloaded from the NYSDOH web site, is attached.

**Action Items:**

- The Corps will continue to conduct interviews with people familiar with NFSS between 1940 and 1986.
- Posters will be placed in the Ransomville, Lewiston and Youngstown Public Libraries, and respective Town Halls to announce upcoming Restoration Advisory Board Meetings.
- Corps to provide briefing regarding the status of the other buildings besides the Waste Water Treatment Plant at the Lake Ontario Ordnance Works Site.
- Niagara County Health Department to identify availability of someone from the New York State Health Department to present information on future health studies.
- The Corps will look into providing the RAB with a radiological and chemical technical assistant.
- The Corps will provide RAB members with an acronym glossary.
- Tim Henderson will bring in documents regarding the west ditch of Six Mile Creek.
- Judy Leithner will contact the University of Rochester in regards to obtaining documents associated with the Rochester Burial Area.
- Mary Kay Foley will have data about LOOW to present at the next RAB meeting and Judy Leithner will present data if she has it.
- Arleen will poll current RAB members for interest in serving for another 2 year term and will also place newspaper ads for potential new RAB members to submit applications.
- The Corps will look into obtaining the deed between the Town of Lewiston and the government for the WWTP.

**Agenda Items for the Next meeting:**

- Will follow the same agenda format.

Next meeting scheduled for June 13, 2001.

<b>Guests Present:</b>	<b>Affiliation:</b>
David Frothingham	USACE
Don Finch	FACTS
Gordy Porter	EA Engineering
Bill Micheltmore	Buffalo News
Chuck Basham	USACE
Brenda Herman	EA Engineering
Drew Rak	USACE
James Bynum	USACE
Jennifer Rhue	Self
Michelle Barczak	USACE
Nicolette de Csipkay	Self
Steve Mikolaichik	Self
Roberta Mikolaichik	Self
Raphael Roffle	Self
Barbara Roffle	Self
Joe Foley	Self
Arleen Kreusch	USACE, CT
Tara Colangelo	USACE, CT
Jim Ward	Senator Maziarz
Alexander W. Kravitz	Self
Colleen Wendel	Self
Judy Leithner	USACE
Mary Kay Foley	USACE
Linda Shaw	Somerset Group
George H. Forman	ROLE
Jeff Gabriel	Self
Irene Murawski	Self
Candy Swisher	Self
Lorraine Miller	Self
Tom Leithner	Self
Bill Monteith	Self
Karen Keil	USACE
Phil Bousquet	Self
Dona Sweet	Self
Roger Flick	Self
Philip Sweet	Self
Sandra Staigerd	EA Engineering
Fr. Peter M. Calabrese	Self
Louis Ricciuti	FACTS
George Brooks	USACE
Tom Switala	USACE
Michelle Rehmann	IUC
Joan Broderick	Self
Mary Ann Rolland	Town of Porter Brownfields
Paul Swisher	Self
Peter Weber	Niagara Gazette
Rick Lee	Congressman LaFalce